

Speaker: Jacob Sonnenschein

Title: HISH confronting the real world

Abstract: Several comments about confronting the real world will be made. I will write down the steps taken to derive the HISH model. I will start with holographic confining backgrounds in which classical rotating strings will be analyzed. The HISH map will be specified. Next I will extract the physical parameters, tension, string endpoint masses (quarks) and intercepts from best fit to experimental data. The quantization of a string with massive endpoints in non-critical dimensions will be performed including a Casimir-like renormalization. The strong decay width and branching ratios that follow from the mechanism of breaking up of a string will be determined. Next I will describe the stringy picture of glueballs including a method to disentangle them from flavorless mesons. The stringy picture of exotic hadrons and like tetra-quarks will be drawn and a way to distinguish between molecules and genuine exotic hadrons. The passage from a stringy scattering amplitude to a partonic one will be derived. Predictions for higher states of mesons, baryons and exotic hadrons will be written down. Several open questions will end the talk.